2013

Nebraska Summary: S910 Massey Ferguson 7615

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SUMMARY OF OECD TEST 2774–NEBRASKA SUMMARY 910
MASSEY FERGUSON 7615 DYNA VT DIESEL
CONTINUOUSLY VARIABLE TRANSMISSION

POWER TAKE-OFF PERFORMANCE

Power HP *(kW)*	Crank shaft speed rpm	Diesel Consumption Gal/hr *(l/h)*	lb/hp.hr *(kg/kW.h)*	D.E.F. Consumption Hp.hr/gal *(kW.h/l)*	D.E.F. Consumption Gal/hr *(l/h)*	Mean Atmospheric Conditions
MAXIMUM POWER AND FUEL CONSUMPTION						
Rated Engine Speed—(PTO speed—1032 rpm)						
121.1 *(90.3)*	2100	7.46 *(28.23)*	0.429 *(0.261)*	16.24 *(3.20)*	0.29 *(1.11)*	
Standard Power Take-off Speed (1000 rpm)						
131.4 *(98.0)*	2034	7.82 *(29.59)*	0.415 *(0.253)*	16.80 *(3.31)*	0.32 *(1.21)*	
Maximum Power (1 hour)						
136.2 *(101.6)*	2000	7.95 *(30.08)*	0.407 *(0.247)*	17.14 *(3.38)*	0.33 *(1.26)*	
VARYING POWER AND FUEL CONSUMPTION						
121.1 *(90.3)*	2100	7.46 *(28.23)*	0.429 *(0.261)*	16.24 *(3.20)*	0.29 *(1.11)*	Air temperature
104.9 *(78.2)*	2118	6.61 *(25.01)*	0.439 *(0.267)*	15.87 *(3.13)*	0.26 *(0.97)*	72°F *(22°C)*
79.1 *(59.0)*	2132	5.43 *(20.55)*	0.478 *(0.291)*	14.57 *(2.87)*	0.22 *(0.84)*	Relative humidity
53.4 *(39.8)*	2140	4.05 *(15.32)*	0.529 *(0.322)*	13.20 *(2.60)*	0.16 *(0.60)*	45%
26.6 *(19.8)*	2148	3.00 *(11.35)*	0.789 *(0.480)*	8.86 *(1.74)*	0.12 *(0.44)*	Barometer
--- ---	2155	1.90 *(7.20)*	--- ---	--- ---	--- ---	29.6" Hg *(100.4 kPa)*

Maximum torque - 446.3 lb.-ft. *(605.1 Nm)* at 1500 rpm
Maximum torque rise - 47.2%
Torque rise at 1700 engine rpm - 32%
Power increase at 2000 engine rpm - 12%

DRAWBAR PERFORMANCE
(Unballasted - Front Drive Engaged)
FUEL CONSUMPTION CHARACTERISTICS

Power Hp *(kW)*	Drawbar pull lbs *(kN)*	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Fuel Consumption Hp.hr/gal *(kW.h/l)*	Temp.°F *(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
Maximum Power—Turtle 8									
97.9 *(73.0)*	7530 *(33.5)*	4.88 *(7.86)*	2101	3.6	0.539 *(0.328)*	12.94 *(2.55)*	181 *(83)*	39 *(4)*	29.7 *(100.5)*
75% of Pull at Maximum Power—Turtle 8									
73.2 *(54.6)*	5595 *(24.9)*	4.91 *(7.90)*	2116	2.0	0.556 *(0.339)*	12.54 *(2.47)*	181 *(83)*	39 *(4)*	29.7 *(100.5)*
50% of Pull at Maximum Power—Turtle 8									
49.3 *(36.8)*	3720 *(16.5)*	4.97 *(8.00)*	2126	1.7	0.669 *(0.407)*	10.42 *(2.05)*	180 *(82)*	39 *(4)*	29.7 *(100.5)*
75% of Pull at Reduced Engine Speed—Turtle 12									
73.6 *(54.9)*	5630 *(25.1)*	4.90 *(7.89)*	1359	2.2	0.501 *(0.305)*	13.91 *(2.74)*	185 *(85)*	41 *(5)*	29.7 *(100.5)*
50% of Pull at Reduced Engine Speed—Turtle 12									
48.5 *(36.2)*	3665 *(16.3)*	4.96 *(7.99)*	1362	1.7	0.563 *(0.342)*	12.40 *(2.44)*	183 *(84)*	41 *(5)*	29.7 *(100.5)*

Location of tests: IRSTEA, Centre d'Antony, 1 rue Pierre-Gilles de Gennes CS 10030, Antony, France 92761

Dates of tests: March to April, 2013

Manufacturer: AGCO S.A. BP 307, Avenue Blaise Pascal, 60026 Beauvais, France

CONSUMABLE Fluids and OIL: Fuel No. 2 Diesel **Specific gravity converted to 60°/60°F *(15°/15°C)*** 0.838 **Fuel weight** 6.98 lbs/gal *(0.836 kg/l)* **Diesel Exhaust Fluid (DEF)** 32% aqueous urea solution **DEF weight** 9.08 lbs/gal *(1.091 kg/l)* **Oil SAE** 15W40 **API service classification** CJ-4 **Transmission and hydraulic lubricant** BP Terrac Tractan 9 10W/40 **Front axle lubricant** SAE 85W140 API GL-5

ENGINE: Make AGCO Power Diesel **Type** Six cylinder vertical with turbocharger, air to air intercooler and SCR (selective catalyst reduction) exhaust treatment **Serial No.** W00422 **Crankshaft** lengthwise **Rated engine speed** 2100 **Bore and stroke** 4.252" x 4.724" *(108.0 mm x 120.0 mm)* **Compression ratio** 17.4 to 1 **Displacement** 402 cu in *(6596 ml)* **Starting system** 12 volt **Lubrication** pressure **Air cleaner** two paper elements **Oil filter** one full flow cartridge **Oil cooler** engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil **Fuel filter** one paper element **Muffler** vertical **Cooling medium temperature control** thermostat and variable speed fan

CHASSIS: Type front wheel assist **Serial No.** B 175 901 **Tread width** rear 52.8" *(1340 mm)* to 87.8" *(2230 mm)* front 52.8" *(1340 mm)* to 87.8" *(2230 mm)* **Wheelbase** 113.2" *(2875 mm)* **Hydraulic control system** direct engine drive **Transmission** CVT. A combination of mechanical and hydrostatic sections allow an infinite speed adjustment within the ranges noted. The transmission has two mechanical ranges. **Nominal travel speeds mph *(km/h)*** forward: Low range 0-17.8 *(0-28.6)*, high range 0-25 *(0-40)* reverse: Low range 0-10.2 *(0-16.4)*, high range 0-18 *(0-30)* **Clutch** a foot pedal controls the hydrostatic oil flow **Brakes** multiple wet disc hydraulically operated by two foot pedals that can be locked together **Steering** hydrostatic **Power take-off** 540 rpm at 2063 engine rpm or 1000 rpm at 2035 engine rpm **Unladen tractor mass** 16830 lb *(7635 kg)*

DRAWBAR PERFORMANCE

(Unballasted - Front Drive Engaged)
MAXIMUM POWER IN SELECTED GEARS

Power Hp *(kW)*	Drawbar pull lbs *(kN)*	Speed mph *(km/h)*	Crank-shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr *(kg/kW.h)*	Hp.hr/gal *(kW.h/l)*	Temp.°F*(°C)* cool-ing med	Air dry bulb	Barom. inch Hg *(kPa)*
					Turtle 3.5				
88.6 *(66.1)*	15240 *(67.8)*	2.18 *(3.51)*	2105	13.8	0.561 *(0.340)*	12.49 *(2.46)*	180 *(82)*	37 *(3)*	29.6 *(100.4)*
					Turtle 4.5				
105.5 *(78.7)*	14345 *(63.8)*	2.76 *(4.44)*	2020	7.2	0.517 *(0.314)*	13.50 *(2.66)*	178 *(81)*	39 *(4)*	29.7 *(100.5)*
					Turtle 6.5				
110.2 *(82.2)*	10545 *(46.9)*	3.92 *(6.31)*	1998	4.1	0.497 *(0.303)*	14.01 *(2.76)*	181 *(83)*	39 *(4)*	29.7 *(100.5)*
					Turtle 8				
110.9 *(82.7)*	8565 *(38.1)*	4.85 *(7.81)*	1994	3.2	0.496 *(0.302)*	14.06 *(2.77)*	183 *(84)*	39 *(4)*	29.7 *(100.5)*
					Turtle 10				
109.6 *(81.7)*	6475 *(28.8)*	6.35 *(10.22)*	1997	2.2	0.501 *(0.305)*	13.91 *(2.74)*	185 *(85)*	39 *(4)*	29.7 *(100.5)*
					Turtle 12				
106.3 *(79.3)*	5485 *(24.4)*	7.27 *(11.70)*	2001	1.8	0.522 *(0.317)*	13.37 *(2.63)*	181 *(83)*	41 *(5)*	29.7 *(100.5)*
					Turtle 14				
103.7 *(77.3)*	4450 *(19.8)*	8.74 *(14.06)*	2002	1.5	0.535 *(0.325)*	13.05 *(2.57)*	185 *(85)*	41 *(5)*	29.7 *(100.5)*
					Rabbit 9				
107.4 *(80.1)*	7240 *(32.2)*	5.56 *(8.95)*	2001	2.8	0.519 *(0.315)*	13.45 *(2.65)*	183 *(84)*	41 *(5)*	29.7 *(100.5)*
					Rabbit 12				
108.9 *(81.2)*	5575 *(24.8)*	7.33 *(11.79)*	1997	2.1	0.512 *(0.312)*	13.60 *(2.68)*	185 *(85)*	43 *(6)*	29.7 *(100.5)*
					Rabbit 15				
104.6 *(78.0)*	4520 *(20.1)*	8.68 *(13.97)*	2003	1.6	0.530 *(0.322)*	13.16 *(2.59)*	185 *(85)*	43 *(6)*	29.6 *(100.4)*
					Rabbit 17				
102.9 *(76.7)*	3895 *(17.3)*	9.91 *(15.95)*	2000	1.3	0.539 *(0.328)*	12.92 *(2.54)*	187 *(86)*	43 *(6)*	29.6 *(100.4)*

REPAIRS AND ADJUSTMENTS: No repairs or adjustments.

NOTE: The performance figures on this report are the result of replacing the electronic engine control module of the Massey Ferguson 7616 Dyna-VT with the Massey Ferguson 7615 Dyna-VT module.

REMARKS: All test results were determined from observed data obtained in accordance with official OECD test procedures. The performance figures on this summary were taken from a test conducted under the OECD Code 2 test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Report No. **2774,** Nebraska Summary 910, January 23, 2014.

Roger M. Hoy
Director

M.F. Kocher
J.D. Luck
P.J. Jasa
Board of Tractor Test Engineers

TRACTOR SOUND LEVEL WITH CAB	Front wheel drive Engaged dB(A)	Front wheel drive Disengaged dB(A)
At no load in Turtle 8	69.0	69.0
Bystander		--

TIRES, BALLAST AND WEIGHT

	Tested without ballast
Rear Tires - No., size, ply & psi(*kPa*)	Two 650/65R38;**;14(*100*)
Front Tires - No., size, ply & psi(*kPa*)	Two 520/65R28;**;14(*100*)
Height of Drawbar	19.7 in (*500 mm*)
Static Weight with operator - Rear	9855 lb (*4470 kg*)
- Front	7145 lb (*3240 kg*)
- Total	17000 lb (*7710 kg*)

HYDRAULIC PERFORMANCE

CATEGORY: II	
Quick Attach: No	
OECD Static test	
Maximum force exerted through whole range:	11755 lbs *(52.3 kN)*
	two outlet sets combined
i) Sustained pressure at compensator cutoff:	2990 psi *(199 bar)*
ii) Pump delivery rate at minimum pressure:	29.4 GPM *(111.3 l/min)*
iii)Pump delivery rate at maximum hydraulic power:	27.6 GPM *(104.4 l/min)*
Delivery pressure:	2290 psi *(158 bar)*
Power:	36.9 HP *(27.5 kW)*
	single outlet set
i) Sustained pressure at compensator cutoff:	2900 psi *(199 bar)*
ii) Pump delivery rate at minimum pressure:	28.9 GPM *(109.5 l/min)*
iii)Pump delivery rate at maximum hydraulic power:	27.8 GPM *(105.2 l/min)*
Delivery pressure:	1900 psi *(131 bar)*
Power:	30.8 HP *(22.9 kW)*

HITCH DIMENSIONS AS TESTED—NO LOAD

	inch	*mm*
A	31.3	*796*
B	13.4	*340*
C	13.9	*354*
D	11.9	*303*
E	8.8	*223*
F	10.3	*261*
G	34.5	*875*
H	2.4	*60*
I	15.2	*386*
J	24.2	*614*
K	26.1	*662*
L	45.6	*1157*
M	26.1	*662*
N	39.8	*1012*
O	7.9	*201*
P	48.2	*1224*
Q	34.8	*884*
R	29.9	*760*